

Serial No. 09/616,232
Art Unit No. 2175

In the Specification:

Amend the Abstract as set forth below.

In the Claims:

Amend Claims 2-6, 8-9, 11-12, 18-19, 21-22, 27-28, 35-36, and 38 as set forth on the following pages.

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MARKED UP CLAIMS WITH AMENDMENTS SHOWN

1. Method of producing a compact representation of a data package, the data package comprising at least one of meta-data and associated data elements and meta-data and associated data packages, where the meta-data comprises at least one of name and type identifications for the data element and name and type identifications for the data package, comprising the steps of:
- a) arranging of the data packages in a sequence;
 - b) searching of the meta-data for defined, non-application-dependent name and type identifications; and
 - c) representing the identifications found in step b) by defined substitutes which require little storage space.
2. Method of producing a compact representation of a structure of meta-data and data elements, with the correlation of meta-data with data, comprising data elements or a sub-structure of a structure [b,eing] being performed by a program and with the meta-data comprising at least name and type identifications for the data, comprising the steps of:

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- a) combining of meta-data and associated data to form a plurality of data packages;
 - b) arranging the data packages in a sequence;
 - c) searching the meta-data for defined, non-application-dependent identifications; and
 - d) representing the identifications found in step c) by defined substitutes which require little storage space.
3. Method according to claim 1 further comprising the step of:
- [e)] storing the result of steps [a-d] a-c on a storage medium.
4. Method according to claim 2 further comprising the step of:
- [e)] storing the result of steps a-d on a storage medium.
5. Method according to claim 1 further comprising the step of:

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[f)] transmitting the result of steps [a-d] a-c to a data-processing device.

6. Method according to claim [1] 2 further comprising the step of:

[f)] transmitting the result of steps a-d to a data-processing device.

8. Method according to claim 1, [characterised] characterized in that the data package is an object which contains at least the following data elements with the following non-application-dependent identifications:

object name, object type and object attributes.

9. Method according to claim [1, wherein] 2, characterized in that the data package is an object which contains the following data elements with the following non-application-dependent identifications:
object name, object type, object version and object attributes.

11. Method according to claim [5] 6, wherein the data package is a Java object.

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12. Method according to claim 1, [whereni] wherein the data package is in XML (extendable markup language).

18. Method according to claim [1] 2 wherein the data package is a data structure which contains data elements with the following non-application-dependent identifications:

name, type, version and attributes of the data element.

19. Method according to claim 1 wherein steps [a)-d)] a-c are performed by a program, with a table to correlate non-application-dependent identifications with their associated substitutes being contained in the program.

21. Method according to claim 1 comprising the following further steps:

aa) searching of the meta-data for defined, application- dependent identifications;

bb) representation of the application-dependent identifications found in step aa) by defined substitutes which require little storage space;

cc) storage of the result of steps aa)-bb) on a storage medium or transmission of the result of steps aa)-bb) to a data-processing device.

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22. Method according to claim 2 comprising the following further steps:

- aa) searching of the meta-data for defined, application- dependent identifications;
- bb) representation of the application-dependent identifications found in step aa) by defined substitutes which require little storage space;
- cc) storage of the result of steps aa)-bb) on a storage medium or transmission of the result of steps aa)-bb) to a data-processing device.

27. Method according to claim 25, [characterised] characterized in that the substitute occupies a maximum of 2 bytes of storage space.

28. Method according to claim 26, [characterised] characterized in that the substitute is make up of class, constructed flag and ID.

35. Apparatus comprising at least:

- a) a data-processing device;
- b) communications means;

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- c) a chip card, with data being exchangeable between the data-processing device and the chip card via the communications means, [characterised] characterized in that a program to control a method according to claim 1 can be installed on the data-processing device and the result of the method according to claim 1 is stored on the chip card.

36. Apparatus comprising at least:

- a) a data-processing device;
- b) communications means;
- c) a chip card, with data being exchangeable between the data-processing device and the chip card via the communications means, [characterised] characterized in that a program to control a method according to claim 2 can be installed on the data-processing device and the result of the method according to claim 2 is stored on the chip card.

38. Computer software product which can be stored in the internal store of a digital computer, containing items of software code to carry out the method of producing a compact representation of a structure of meta-data and data elements, with the correlation of meta-data with data, comprising data elements or a sub-structure of a structure [b,eing] being performed

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by a program and with the meta-data comprising at least name and type identifications for the data, comprising the steps of:

- a) combining of meta-data and associated data to form a plurality of data packages;
- b) arranging the data packages in a sequence;
- c) searching the meta-data for defined, non-application-dependent identifications; and
- d) representing the identifications found in step c) by defined substitutes which require little storage space.

NEW CLAIM LANGUAGE WITH INCORPORATED AMENDMENTS

SUB B2/

2. Method of producing a compact representation of a structure of meta-data and data elements, with the correlation of meta-data with data, comprising data elements or a sub-structure of a structure being performed by a program and with the meta-data comprising at least name and type identifications for the data, comprising the steps of:
- a) combining of meta-data and associated data to form a plurality of data packages;
 - b) arranging the data packages in a sequence;
 - c) searching the meta-data for defined, non-application-dependent identifications; and
 - d) representing the identifications found in step c) by defined substitutes which require little storage space.
3. Method according to claim 1 further comprising the step of:
- storing the result of steps a-c on a storage medium.

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4. Method according to claim 2 further comprising the step of:

storing the result of steps a-d on a storage medium.

5. Method according to claim 1 further comprising the step of:

transmitting the result of steps a-c to a data-processing device.

6. Method according to claim 2 further comprising the step of:

transmitting the result of steps a-d to a data-processing device.

8. Method according to claim 1, characterized in that the data package is an object which contains at least the following data elements with the following non-application-dependent identifications:

object name, object type and object attributes.

9. Method according to claim 2, characterized in that the data package is an object which contains the following

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data elements with the following
non-application-dependent identifications:
object name, object type, object version and object
attributes.

SUB B6> 11. Method according to claim 6, wherein the data package
is a Java object.

A³ 12. Method according to claim 1, wherein the data package
is in XML (extendable markup language).

SUB B8> A⁴ 18. Method according to claim 2 wherein the data package is
a data structure which contains data elements with the
following non-application-dependent identifications:

name, type, version and attributes of the data element.

19. Method according to claim 1 wherein steps a-c are
performed by a program, with a table to correlate
non-application-dependent identifications with their
associated substitutes being contained in the program.

SUB B10> A⁵ 21. Method according to claim 1 comprising the following
further steps:

aa) searching of the meta-data for defined,
application- dependent identifications;

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bb) representation of the application-dependent identifications found in step aa) by defined substitutes which require little storage space;

cc) storage of the result of steps aa)-bb) on a storage medium or transmission of the result of steps aa)-bb) to a data-processing device.

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22. Method according to claim 2 comprising the following further steps:

aa) searching of the meta-data for defined, application-dependent identifications;

bb) representation of the application-dependent identifications found in step aa) by defined substitutes which require little storage space;

cc) storage of the result of steps aa)-bb) on a storage medium or transmission of the result of steps aa)-bb) to a data-processing device.

SUB 8127

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27. Method according to claim 25, characterized in that the substitute occupies a maximum of 2 bytes of storage space.

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28. Method according to claim 26, characterized in that the substitute is made up of class, constructed flag and ID.

SUB B147
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35. Apparatus comprising at least:

- a) a data-processing device;
- b) communications means;
- c) a chip card, with data being exchangeable between the data-processing device and the chip card via the communications means, characterized in that a program to control a method according to claim 1 can be installed on the data-processing device and the result of the method according to claim 1 is stored on the chip card.

36. Apparatus comprising at least:

- a) a data-processing device;
 - b) communications means;
 - c) a chip card, with data being exchangeable between the data-processing device and the chip card via the communications means, characterized in that a program to control a method according to claim 2 can be installed on the data-processing device and the result of the method according to claim 2 is stored on the chip card.
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SUB B167
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38. Computer software product which can be stored in the internal store of a digital computer, containing

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items of software code to carry out the method of producing a compact representation of a structure of meta-data and data elements, with the correlation of meta-data with data, comprising data elements or a sub-structure of a structure being performed by a program and with the meta-data comprising at least name and type identifications for the data, comprising the steps of:

- A9
- a) combining of meta-data and associated data to form a plurality of data packages;
 - b) arranging the data packages in a sequence;
 - c) searching the meta-data for defined, non-application-dependent identifications; and
 - d) representing the identifications found in step c) by defined substitutes which require little storage space.
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